

REMARKS

Applicant has studied the Office Communication dated March 31, 2004, and has made amendments to the disclosure and the claims. Claims 13, 14 and 19 have been amended. Claims 1-20 are pending. Claims 1, 9, 12, 15 and 20 are independent claims. Claims 12 and 20 have previously been allowed. No new matter has been added. It is submitted that the application, as amended, is in condition for allowance. Reconsideration and reexamination are respectfully requested.

Objections to the Specification

The Examiner objected to informalities in the disclosure for which the Examiner made suggestions to remedy. Specifically, the Examiner stated that elements 504 and 507 on Figure 5 had been described/labeled interchangeably throughout pages 12-14 as "tangential coil" and "focusing coil", respectively, which should have been --focusing coil-- and --tangential coil--, respectively. Applicant respectfully submits that the specification has not been amended as suggested by the Examiner in lieu of the Applicant's own amendments to the specification. Applicant submits that based on the newly amended disclosure, the description of elements 504 and 507 no longer appear to be switched. Therefore, Applicant respectfully requests that the objections be withdrawn.

Rejections under 35 U.S.C. § 112

Claims 1-11 and 13-19 have been rejected under 35 U.S.C. § 112, first paragraph, as failing to comply with the enablement requirement. The claims contain subject matter which were not described in the specification in such a way as to enable one skilled in the art to which they pertain, or with which they are most nearly connected, to make and/or use the invention.

With regard to claim 1, the Examiner asserted that there is no disclosure of how to make and use an actuator having a fixed body attached with a pair of first magnets and a coil serving to move the lens holder in a desired direction. It was further asserted that it is not described how a magnet and a coil both attached to the same fixed body cause movement. Applicant respectfully traverses this rejection and asserts that a "fixed body" may be a "yoke". The paragraph starting on page 9, line 19 of the specification has been amended to more clearly point out this fact.

However, regardless of this amendment, Applicant submits that the specification sufficiently discloses what is recited in claim 1. As shown in Figure 3, first magnets 303, radial coil 304 and tangential coil 305 are attached to the yoke 306 (fixed body). When current flows through the radial coil 304 and the tangential coil 305, a Lorentz force is generated in accordance with Fleming's Left Hand Law. By virtue of the Lorentz force, the first magnets 303 are driven. The first magnets 303, the yoke 306 and second magnets 307 attached to the lens holder 302 form a magnetic circuit to generate magnetic flux at the radial coil 304 and the tangential coil 305. In accordance with an interlinkage of the magnetic flux, a desired force is generated to move the lens holder 302. Support for this can be found in the specification at page 10, line 13 to page 11, line 6, and in claim 1.

With respect to claim 9, the Examiner asserted that there is no disclosure of how to make and use an actuator having a moving magnet system to conduct tracking and focusing operations and a moving coil system to conduct a tilt compensating operation. Applicant respectfully submits that the amended specification clearly describes the operation of such systems. Specifically, the paragraphs beginning on page 12, line 21, page 13, line 4, page 13, line 8, page 13, line 20 and page 14, line 4 have been amended to point out the features of a moving magnet system conducting tracking and focusing operations and a moving coil system conducting a tilt compensating operation.

With respect to claims 13 and 14, the Examiner asserted that respectively, there is no disclosure of how to make and use an actuator having a first magnet means adapted to conduct a tilt compensation nor a first magnet means having magnet units for conducting a tangential and radial tilt compensation. The Examiner further noted that base claim 12 describes a first magnet means that conducts tracking and focusing operations. In response, Applicant has amended dependent claims 13 and 14 replacing "second magnet means" with --first magnet means-- in order to agree with the base claim 12.

With respect to claim 15, the Examiner asserted that there is no disclosure of how to make and use an actuator having the claimed alternative operating condition of driving a second magnetic circuit unit for tilting operations when a first magnetic circuit unit is driven for tracking and focusing operations, and driving the second magnetic circuit unit for tracking and focusing operations when the first magnetic circuit unit is driven for tilting operations. Applicant respectfully submits that the amended specification clearly describes how to make and use a

moving coil system for tracking and focusing operations, a moving magnet system for radial and tangential tilt compensation, a moving coil system for radial and tangential tilt compensation and a moving magnet system for tracking and focusing operations. Based on these teachings, one skilled in the art would be able to implement all four of these systems onto one optical pick-up actuator without undue experimentation. The disclosure does not need to teach, and preferably omits, that which is well known in the art such as the "switchable circuits" stated by the Examiner. Therefore, the claimed invention is enabling.

Thus, it is respectfully asserted that claims 1, 9 and 13-15 are allowable over the § 112 rejections. It is further respectfully asserted that claims 2-8, 10, 11 and 16-19, dependent upon previously rejected base claims, are also allowable over the § 112 rejections. Claims 12 and 20 have previously been allowed.

CONCLUSION

In light of the above remarks, Applicant submits that present Amendment places all claims in condition for allowance. Reconsideration of the application is requested.


No amendment made was related to the statutory requirements of patentability unless expressly stated herein; and no amendment made was for the purpose of narrowing the scope of any claim, unless Applicant has argued herein that such amendment was made to distinguish over a particular reference or combination of references.

If for any reason the Examiner finds the application other than in condition for allowance, the Examiner is requested to call the undersigned attorney at the Los Angeles, California, telephone number (213) 623-2221 to discuss the steps necessary for placing the application in condition for allowance.


Respectfully submitted,

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